

Litter System  
MO 00715292  
1-8

1-6-89

DOCUMENTATION RECORDS  
FOR  
HAZARD RANKING SYSTEM

**INSTRUCTIONS:** As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 items plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference. Include the location of the document.

**FACILITY NAME:** Litton Industries

**LOCATION:** 4811 West Kearney, Springfield, MO

**DATE SCORED:** \_\_\_\_\_

**PERSON SCORING:** \_\_\_\_\_

**PRIMARY SOURCE(S) OF INFORMATION (e.g., EPA region, state, FIT, etc.):** \_\_\_\_\_

**FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:** \_\_\_\_\_

**COMMENTS OR QUALIFICATIONS:** \_\_\_\_\_

## GROUND WATER ROUTE

### 1 OBSERVED RELEASE

Contaminants Detected (3 maximum):

Trichloroethylene

Chromium

Lead

Copper (ref. 2)

Rationale for attributing the contaminants to the facility:

Chemicals known to have been found in the lagoon on Litton property and in soils in irrigation field.

(ref. 3)

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### 2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern:

Name/description of aquifer(s) of concern:

5 - 20' & 300' (ref. 4)

Depth(s) from the ground surface to the highest seasonal level of the saturated zone (water table(s)) of the aquifer of concern:

75' upper 250-275 lower (ref. 4)

Depth from the ground surface to the lowest point of waste disposal/storage:

6" as per sampling - MDNR 1-88

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

41" annual

Mean annual lake or seasonal evaporation (list months for seasonal):

42" annual

Net precipitation (subtract the above figures):

-1"

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Red cherty clay residual soil (ref.4)

Permeability associated with soil type:

0.6 - 2.0 inches/hour ( $10^{-3}$  to  $10^{-4}$  cm/sec) (Ref.4)

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Liquid (Ref.3)

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### **3 CONTAINMENT**

#### **Containment**

**Method(s) of waste or leachate containment evaluated:**

**Terracing (ref. 3)**

**Method with highest score:**

### **4 WASTE CHARACTERISTICS**

#### **Toxicity and Persistence**

**Compound(s) evaluated:**

**Chromium**

**Copper**

**Trichloroethylene**

**Lead**

**(ref. 2)**

**Compound with highest score:**

#### **Hazardous Waste Quantity**

**Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):**

**none stored**

**contaminated soil - depth unknown - 2-acre site.**

**Basis of estimating and/or computing waste quantity:**

### 3 TARGETS

#### Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Drinking water - private water wells

Cattle watering

#### Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

North northeast (ref. 5)

#### Distance to above well or building:

0.5 miles (ref.5)

#### Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

Estimated private individual wells - 270 (ref. 5)

Several public wells - into lower aquifer (ref. 3)

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

None known of.

Total population served by ground water within a 3-mile radius:

Estimated 4,000 - additional 12,000 estimated within three mile radius are on Springfield city water. (ref. 5)

## SURFACE WATER ROUTE

1 OBSERVED RELEASE      None

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Rationale for attributing the contaminants to the facility:

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### 2 ROUTE CHARACTERISTICS

#### Facility Slope and Intervening Terrain

Average slope of facility in percent:.

Name/description of nearest downslope surface water:

Average slope of terrain between facility and above-cited surface water body in percent:

Is the facility located either totally or partially in surface water?

Is the facility completely surrounded by areas of higher elevation?

1-Year 24-Hour Rainfall in Inches

Distance to Nearest Downslope Surface Water

Physical State of Waste

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**3 CONTAINMENT**

Containment

Method(s) of waste or leachate containment evaluated:

Method with highest score:

#### **4. WASTE CHARACTERISTICS**

##### **Toxicity and Persistence**

**Compound(s) evaluated**

**Compound with highest score:**

##### **Hazardous Waste Quantity**

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

**Basis of estimating and/or computing waste quantity:**

#### **5 TARGETS**

##### **Surface Water Use**

**Use(s) of surface water within 3 miles downstream of the hazardous substance:**

Is there tidal influence?

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

**Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):**

**Total population served:**

**Name/description of nearest of above water bodies:**

**Distance to above-cited intakes, measured in stream miles.**

**AIR ROUTE**

**1. OBSERVED RELEASE**      **None**

**Contaminants detected:**

**Date and location of detection of contaminants**

**Methods used to detect the contaminants:**

**Rationale for attributing the contaminants to the site:**

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**2. WASTE CHARACTERISTICS**

**Reactivity and Incompatibility**

**Most reactive compound:**

**Most incompatible pair of compounds:**

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Toxicity

Most toxic compound:

Hazardous Waste Quantity

Total quantity of hazardous waste:

Basis of estimating and/or computing waste quantity:

\* \* \*

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi      0 to 1 mi      0 to 1/2 mi      0 to 1/4 mi

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

**Distance to critical habitat of an endangered species, if 1 mile or less:**

**Land Use**

**Distance to commercial/industrial area, if 1 mile or less:**

**Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:**

**Distance to residential area, if 2 miles or less:**

**Distance to agricultural land in production within past 5 years, if 1 mile or less:**

**Distance to prime agricultural land in production within past 5 years, if 2 miles or less:**

**Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?**

**FIRE AND EXPLOSION****FIRE AND EXPLOSION**

CONTAINMENT

**1 CONTAINMENT****N/A**

Hazardous substances present:

Type of containment, if applicable:

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**2 WASTE CHARACTERISTICS****Direct Evidence****Type of instrument and measurements:****Ignitability****Compound used:****Reactivity****Most reactive compound:****Incompatibility****Most incompatible pair of compounds:**

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Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

Basis of estimating and/or computing waste quantity:

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**3 TARGETS**

Distance to Nearest Population

Distance to Nearest Building

Distance to Sensitive Environment

Distance to wetlands:

Distance to critical habitat:

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Distance to residential area, if 2 miles or less:

Distance to agricultural land in production within past 5 years, if 1 mile or less:

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

Population Within 2-Mile Radius

Buildings Within 2-Mile Radius

**DIRECT CONTACT**

**1 OBSERVED INCIDENT**      None observed.

Date, location, and pertinent details of incident:

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**2 ACCESSIBILITY**

Describe type of barrier(s):

Fence and security - on-site inspection.

\* \* \*

**3 CONTAINMENT**

Type of containment, if applicable:

None

\* \* \*

**4 WASTE CHARACTERISTICS**

Toxicity

Compounds evaluated:

Copper

Chromium

Trichloroethylene

Lead

(ref. 2)

Compound with highest score:

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**5 TARGETS**

Population within one-mile radius

140 (ref. 5)

Distance to critical habitat (of endangered species)

None endangered.

## **REFERENCES**

If the entire reference is not available for public review in the EPA regional files on this site, indicate where the reference may be found:

<b>Reference Number</b>	<b>Description of the Reference</b>
1.	<b>Uncontrolled Hazardous Waste Site Ranking System; A Users Manual.</b>  <b>National Oil and Hazardous Substances Contingency Plan, Appendix A</b> <b>(40 CFR 300)(47 FR 31219), July 16, 1982.</b>
2.	<b>MDNR Lab Services Report 10-21-88</b>
3.	<b>MDNR files</b>
4.	<b>Geologist's Report 10-12-88</b>
5.	<b>USGS Topography maps.</b>